ALLENDALE WATER DEPARTMENT

WATER QUALITY REPORT 2012

Dear Water Consumer,

The Borough of Allendale is committed to providing high quality drinking water to our consumers.

Drinking water health and safety standards are set by the US Environmental Protection Agency (EPA) and the New Jersey Department of Environmental Protection (NJDEP). We regularly test our water to ensure that it meets these standards.

This report summarizes our drinking water quality tests for the 2012 calendar year. We are pleased to report that in 2012 our drinking water again met all Federal and state drinking water quality standards.

If you would like additional information or if you have any questions concerning this report, feel free to call the Allendale Water Department at 201.818.4413. You can also call the EPA Safe Drinking Water Hotline at 800.426.4791 for further information.

Concerning decisions that may affect the quality of water, the opportunity for public participation is provided during the regularly scheduled council meetings, generally held on the 2nd and 4th Thursday of each month at 8:00 pm.

Sincerely,
Vince Barra
Mayor of Allendale

MAYOR
Vince Barra

BOROUGH COUNCIL
Liz White
PRESIDENT

Ari Bernstein
Susan LaMonica
Jackie McSwiggan
Jim Strauch
Amy Wilczynski

IMPORTANT INFORMATION

This report contains important information about your drinking water. If you do not understand it, please have someone translate it for you.

Sources of Drinking Water

Both tap water and bottled water may come from groundwater (springs, wells) or surface waters (rivers, lakes, ponds, streams, and reservoirs). As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and can pick up substances resulting from the presence of animals or from human activity.

The New Jersey Department of Environmental Protection (NJDEP) has completed and issued the Source Water Assessment Report and Summary for this public water system, which is available at www.state.nj.us/dep/swap or by contacting the NJDEP, Bureau of Safe Drinking Water at 609.292.5550.

The table below illustrates the susceptibility ratings for the seven contaminant categories (and radon) for our sources. The table provides ratings of high (H), medium (M) or low (L) for each contaminant category. The numbers in each column refer to the number of sources with that rating.

SOURCE	CONTAMINANT CATEGORY																							
	pathogens			nutrients			pesticides			volatile organic chemicals			inorganics			radionuclides			radon			disinfection by-product precurcursors		
	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L
Allendale Wells		4	1	3	2			2	3	4		1	3	2		1	4		5			1	4	
UWNJ-Wells	2	5	1	5	3			4	4	7		1	8			5	3		8			2	6	
UWNJ-Surface Intakes	6			2	4			1	5	2	3	1	5	1				6			6	6		

If a system is rated highly susceptible for a contamination category, it does not mean a customer is or will be consuming contaminated drinking water. The rating reflects the potential for contamination of source water, not the existence of contamination. Public water systems are required to monitor for regulated contaminants and to install treatment if any contaminants are detected at frequencies and concentrations above allowable levels.

If you have questions regarding the source water assessment report or summary please contact the Bureau of Safe Drinking Water at swap@dep.state.nj.us or 609.292.5550.

Potential Contaminants

The types of contaminants that may be found in the raw water before it is treated to produce drinking water include:

- *Microbial Contaminants (Pathogens),* such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.
- *Inorganic Contaminants,* such as salts and metals, which can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming.
- *Pesticides and Herbicides,* which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.
- *Organic Chemical Contaminants,* including synthetic (SOC) and volatile organic chemicals (VOC), which are the by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.
- *Radioactive Contaminants,* which can be naturally occurring or be the result of oil and gas production and mining.

All drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA Safe Drinking Water Hotline at: 800.426.4791 or visiting the EPA Drinking Water website at **www.epa.gov/safewater**.

Special Consideration Regarding Children, Pregnant Women, Nursing Mothers, and Others:

Children may receive a slightly higher amount of a contaminant present in the water than do adults, on a body weight basis, because they may drink a greater amount of water per pound of body weight than do adults. For this reason, reproductive or developmental effects are used for calculating a drinking water standard if these effects occur at lower levels than other health effects of concern. If there is insufficient toxicity information for a chemical (for example, lack of data on reproductive or developmental effects), an extra uncertainty factor may be incorporated into the calculation of the drinking water standard, thus making the standard more stringent, to account for additional uncertainties regarding these effects. In cases of lead and nitrate, effects on infants and children are the health endpoints upon which standards are based.

TERMS AND ABBREVIATIONS

- **N/A:** not applicable. Our system was not required to monitor for these requirements in 2011.
- **MCL (Maximum Contaminant Level):** the highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.
- **MCLG (Maximum Contaminant Level Goal):** the level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.
- **AL (Action Level):** the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
- **TT (Treatment Technique):** a required process intended to reduce the level of a contaminant in drinking water.
- **ND:** not detected.
- **ppm:** parts per million; (comparable to one minute in two years or 1 cent in $10,000.00).
- **ppb:** parts per billion; (comparable to one minute in two thousand years or 1 cent in $10,000,000.00).
- **pCi/L:** picocuries per liter, a measure of the radioactivity in water.
- **MRDL (Maximum Residual Disinfectant Level):** The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for the control of microbial contaminants.
- **MRDLG (Maximum Residual Disinfectant Goal):** The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contamination.
- **NJRUL (New Jersey Recommended Upper Limit):** Secondary standards are non-mandatory guidelines to assist public water systems in managing their drinking water for aesthetic considerations, such as taste, color and odor. These contaminants are not considered to present a risk to human health. New Jersey has set Recommended Upper Limits for these contaminants.
- **RAA (Running Annual Average):** The running yearly average of all results at all sampling sites in the distribution system.
- **LRAA (Locational Running Annual Average):** The running yearly average of all results at each sampling site in the distribution system.

WATER QUALITY DATA TABLE

The tables on the following pages list all drinking water contaminants detected during the 2012 calendar year. The presence of these contaminants does not necessarily indicate that the water poses a health risk. Unless otherwise noted, the data shown in the table reflects the highest results from testing performed on samples of water taken from Jan.1 through Dec.31, 2012. The State allows us to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Also, monitoring waivers for asbestos and synthetic organic chemicals were granted to Allendale by NJDEP for the 2012 calendar year.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC (Centers for Disease Control) guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the EPA Safe Drinking Water Hotline at: 800.426.4791.

2012 WATER QUALITY REPORT – ALLENDALE WATER DEPARTMENT – PWSID# NJ0201001

Contaminant	Unit Measurement	MCLG	MCL	Allendale Wells Highest Level Detected	United Water Highest Level Detected	Violation Y/N	Major sources in Drinking Water
MICROBIOLOGICAL CONTAMINANTS							
Turbidity	NTU	0	5% samples ≥ 0.3	N/A	100% ≤ 0.3 NTU	N	Soil runoff. Turbidity is a measure of cloudiness in the water. We monitor it because it is a good indicator of water quality. High turbidity can hinder the effectiveness of disinfectants.
RADIOLOGICAL CONTAMINANTS							
Gross Alpha	pCi/L	0	15	2.43	N/A	N	Erosion of natural deposits.
Combined Radium	pCi/L	0	5	1.28	N/A	N	Erosion of natural deposits.
Combined Uranium	pCi/L	0	30	1.71	N/A	N	Erosion of natural deposits.
INORGANIC CONTAMINANTS							
Arsenic	ppb	0	5	2.57	1	N	Erosion of natural deposits; runoff from orchards; runoff from glass and electric production wastes.
Barium	ppm	2	2	0.667	0.12	N	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits.
Chromium	ppb	100	100	ND	6.6	N	Discharge from steel and pulp mills; erosion of natural deposits.
Copper	ppm	1.3	AL=1.3	Distribution system 90th percentile=0.502 0 sites above AL		N	Corrosion of household plumbing systems; erosion of natural deposits.
Fluoride	ppm	4	4	0.29	0.06	N	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories.
Lead (1)	ppb	0	AL=15	Distribution system 90th percentile: 7.61 1 site above AL		N	Corrosion of household plumbing systems; erosion of natural deposits.
Nickel	ppb	N/A	N/A	ND	2.4	N	Erosion of natural deposits.
Nitrate (as Nitrogen)	ppm	10	10	2.26	3.34	N	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.
DISINFECTANTS AND DISINFECTION BY-PRODUCTS							
Chlorine (2)	ppm	MRDLG = 4	MRDL = 4	highest avg: 0.46		N	Water additive used to control microbes.
TTHM (total trihalomethanes) (3)	ppb	N/A	80	Stage 1: RAA = 32, level detected = 26 Stage 2: LRAA = N/A, range detected = 22.3–47.6		N	By-product of drinking water disinfection.
HAA5 (haloacetic acids) (3)	ppb	N/A	60	Stage 1 RAA = 13, level detected = 10.9 Stage 2 LRAA = N/A, range detected = 8.1-25		N	By-product of drinking water disinfection.
UNREGULATED CONTAMINANTS							
NDMA	ppb	N/A	N/A	N/A	0.016	N	By-product of drinking water disinfection.

1. Special Notice Regarding Lead: If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Allendale Water Department is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water is available from the Safe Drinking Water Hotline or at http://www.epa.gov/safewater/lead.
2. Compliance is based on systemwide running annual average.
3. Sampling locations and compliance calculations for disinfection by-products changed in 2012. Under Stage 1, compliance was determined based upon the running four quarter average (RAA) of all sampling results. Stage 1 monitoring was conducted through the first quarter of 2012 and was then discontinued and replaced with Stage 2. Under Stage 2, compliance is determined based upon the running four quarter average at each sample site (LRAA). The LRAA could not be calculated because only three quarters of monitoring were completed in 2012.

Secondary Standards (1)

Contaminant	Recommended Upper Limit	Allendale Wells	United Water	Major Sources in Drinking Water
Aluminum (ppb)	200	ND	166	Natural mineral.
Chloride (ppm)	250	167	257	Natural mineral, road salt.
Color (CU)	10	ND	3	Natural minerals, organic matter.
Hardness (ppm as $CaCO_3$)	250	324	260	Natural minerals.
Iron (ppb)	300	ND	20	Natural mineral.
Odor (TON)	3	ND	1	Organic matter.
Sodium (ppm)	50	43	63(2)	Natural mineral, road salt.
Sulfate (ppm)	250	28.1	18	Natural mineral.
Total Dissolved Solids (ppm)	500	319	415	Natural minerals.
Zinc (ppm)	5	ND	0.05	Erosion of natural deposits and industrial discharge.

1. Secondary standards are non-mandatory guidelines to assist public water systems in managing their drinking water for aesthetic considerations, such as taste, color, and odor. These contaminants are not considered to present a risk to human health. Results shown are the highest levels detected during routine monitoring.
2. For healthy individuals, the sodium intake from water is not important, because a much greater intake of sodium takes place from salt in the diet. However, sodium levels above the recommended upper limit may be of concern to individuals on a sodium restricted diet.

Allendale Water Department Water Supply Facilities

Currently, the Allendale system is supplied with water from five ground water wells and additional purchased water from United Water New Jersey. The Allendale wells are treated with chlorine for disinfection. Water from Well Nos. 2, 4, and 15 is also treated at the New Street Water Treatment Plant for removal of volatile organic compounds. Water from United Water New Jersey may be surface (reservoir) water, ground (well) water, or a combination. The United Water New Jersey surface water treatment plant uses ozone, a form of oxygen, to purify the water, then the water is pretreated using dissolved air flotation, followed by conventional filtration and then treated with chloramines. Chloramines are a combination of chlorine and ammonia that is used as a final disinfectant within the water distribution system as a means to ensure the safety of the water supply. Similar to chlorine, chloramines are being used throughout the country and are recognized as a safe and effective form of drinking water disinfection. Chloramines can sometimes cause a bleach-like odor in the water but are not harmful. For more information about the United Water supply, visit their website at **www.unitedwater.com/uwnj/**.

Allendale maintains interconnections with United Water, the Borough of Ramsey and the Village of Ridgewood. The Borough has two water storage tanks, including the 1 million gallon Fairhaven Tank and a 400,000 gallon elevated water storage tank located in Ramsey.

Please call our office at 201. 818. 4413 if you have questions. We at Allendale Water Department work around the clock to provide top quality water to every tap. We ask that all our customers help us protect our water sources, which are the heart of our community, our way of life and our children's future.

BOROUGH OF ALLENDALE

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